AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A method of making a thermally-protective coating for a thruster structure, the method being characterized in that it consists in:

· continuously measuring out and mixing ~~(14)~~ at least one polyurethane and a mixture of polymerization agents in which specific fillers have previously been dispersed;

· coating a rotating cylindrical support surface ~~(2)~~ by continuously casting a strip ~~(18)~~ of touching turns of the resulting mixture; and

· pre-polymerizing the resulting coating at ambient pressure so that said polyurethane becomes polymerized sufficiently to be capable of being stressed mechanically.

2. (ORIGINAL) A method according to claim 1, characterized in that said polyurethane has isocyanate terminal groups, said polymerization agents are amines and/or polyols, and said specific fillers are in powder or fiber form.

3. (ORIGINAL) A method according to claim 2, characterized in that said polyurethane is the result of reacting a polyether with diphenyl-methane-diisocyanate.

4. (CURRENTLY AMENDED) A method according to ~~any one of~~ claim~~s~~ 1 ~~to 3~~, characterized in that the continuous casting of said strip ~~(18)~~ of mixture is adjusted so as to obtain both a coating of varying thickness over the entire surface of the support.

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5. (CURRENTLY AMENDED) A method according to ~~any one of~~ claim~~s~~ 1~~ to 4~~, characterized in that the measuring out of said polyurethane and of said mixture of polymerization agents and fillers varies in such a manner as to obtain both a first mixture and at least one second mixture different from the first.

6. (CURRENTLY AMENDED) A method according to claim 5, characterized in that said coating of the surface of the support is obtained by means of a first casting of a strip ~~(18)~~ of said first mixture, and by means of at least one second casting, superposed on the first, of a strip of said second mixture.

7. (CURRENTLY AMENDED) A method according to ~~any one of~~ claim~~s~~ 1~~ to 6~~, characterized in that the step consisting in pre-polymerizing said coating at ambient pressure, also takes place at ambient temperature.

8. (CURRENTLY AMENDED) A method according to ~~any one of~~ claim~~s~~ 1~~ to 7~~, characterized in that it further comprises a step of machining said pre-polymerized coating to have a desired outside profile.

9. (CURRENTLY AMENDED) A method according to ~~any one of~~ claim~~s~~ 1~~ to 8~~, characterized in that it further comprises a step of polymerizing said pre-polymerized coating.

10. (CURRENTLY AMENDED) A method of making a thruster structure comprising a casing fitted with an internal thermally-protective coating and/or an external thermally-protective

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coating, the method being characterized in that said thermally-protective coating is made in accordance with ~~any one of~~ claim~~s~~ 1~~ to 8~~.

11. (CURRENTLY AMENDED) A method according to claim 10, characterized in that the internal thermally-protective coating is made on an outside surface of a mandrel~~ (2)~~, said casing of the thruster being deposited and bonded on an outside surface of said thermally-protective coating.

12. (ORIGINAL) A method according to claim 10, characterized in that an internal thermally-protective coating is deposited and bonded on an inside surface of said casing after the casing has been obtained.

13. (CURRENTLY AMENDED) A method according to ~~any one of~~ claim~~s~~ 10~~ to 12~~, characterized in that an external thermally-protective coating is deposited and bonded on an outside surface of said casing.

14. (CURRENTLY AMENDED) A method according to ~~any one of~~ claim~~s~~ 11~~ to 13~~, characterized in that the bonding between said casing and the thermally-protective coating(s) is implemented with the help of a bonding agent.

15. (CURRENTLY AMENDED) A method according to ~~any one of~~ claim~~s~~ 11~~ to 13~~, characterized in that the bonding between said casing and said thermally-protective coating is implemented with the help of a film of adhesive polyurethane obtained by continuously casting a strip of touching turns.

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16. (CURRENTLY AMENDED) A method according to ~~any one of~~ claim~~s~~ 10~~ to 15~~, characterized in that said casing of the thruster is made of metal.

17. (CURRENTLY AMENDED) A method according to ~~any one of~~ claim~~s~~ 10~~ to 15~~, characterized in that said casing of the thruster is obtained by winding a filament of pre-impregnated fiber material.

18. (ORIGINAL) A method according to claim 17, characterized in that the thermally-protective coating(s) and said filament winding are polymerized simultaneously.

19. (CURRENTLY AMENDED) A solid propellant thruster structure, characterized in that it is made in accordance with ~~any one of~~ claim~~s~~ 10~~ to 18~~.

20. (NEW) A method according to claim 3, characterized in that:

the continuous casting of said strip of mixture is adjusted so as to obtain both a coating of varying thickness over the entire surface of the support;

the measuring out of said polyurethane and of said mixture of polymerization agents and fillers varies in such a manner as to obtain both a first mixture and at least one second mixture different from the first;

said coating of the surface of the support is obtained by means of a first casting of a strip of said first mixture, and

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by means of at least one second casting, superposed on the first, of a strip of said second mixture;

the step consisting in pre-polymerizing said coating at ambient pressure, also takes place at ambient temperature;

it further comprises a step of machining said pre-polymerized coating to have a desired outside profile;

it further comprises a step of polymerizing said pre-polymerized coating.

21. (NEW) A method of making a thruster structure comprising a casing fitted with an internal thermally-protective coating and/or an external thermally-protective coating, the method being characterized in that said thermally-protective coating is made in accordance with claim 20.

22. (NEW) A method according to claim 21, characterized in that the internal thermally-protective coating is made on an outside surface of a mandrel, said casing of the thruster being deposited and bonded on an outside surface of said thermally-protective coating.

23. (NEW) A method according to claim 21, characterized in that an internal thermally-protective coating is deposited and bonded on an inside surface of said casing after the casing has been obtained.

24. (NEW) A method according to claim 22, characterized in that:

an external thermally-protective coating is deposited and bonded on an outside surface of said casing;

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the bonding between said casing and the thermally-protective coating(s) is implemented with the help of a bonding agent;

the bonding between said casing and said thermally-protective coating is implemented with the help of a film of adhesive polyurethane obtained by continuously casting a strip of touching turns;

said casing of the thruster is made of metal;

said casing of the thruster is obtained by winding a filament of pre-impregnated fiber material;

the thermally-protective coating(s) and said filament winding are polymerized simultaneously.

25. (NEW) A method according to claim 23, characterized in that:

an external thermally-protective coating is deposited and bonded on an outside surface of said casing;

the bonding between said casing and the thermally-protective coating(s) is implemented with the help of a bonding agent;

the bonding between said casing and said thermally-protective coating is implemented with the help of a film of adhesive polyurethane obtained by continuously casting a strip of touching turns;

said casing of the thruster is made of metal;

said casing of the thruster is obtained by winding a filament of pre-impregnated fiber material;

the thermally-protective coating(s) and said filament winding are polymerized simultaneously.

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FAX. (617) 451-0313